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THE PLOTTER

CLACKAMAS COUNTY AREA T/S
USERS GROUP
NEWS LETTER

VOLUME 8

**

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MARCH 1990

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TREASURER: ROD GOWEN
PR OFFICER: BOB EVANS
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MEETING

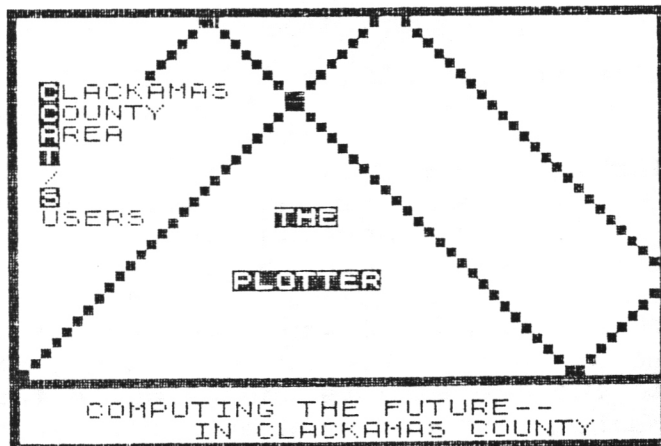
The MARCH meeting will be:

on: FRI., MARCH 16, 1990

meeting room open at: 7:00 P.M.
in: COMMUNITY ROOM
FAR WEST FEDERAL S & L
OREGON CITY SHOPPING CENTER

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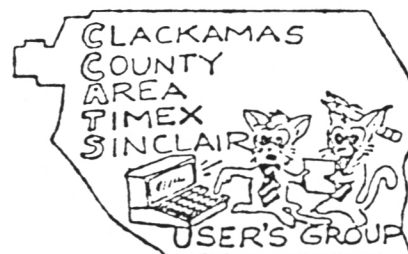


CHAIRMAN'S MUMBLINGS

Thanks to all who voted for me, I'm flattered, and thanks to those who voted for Ed. I wish there had been more of you.

I normally avoid responsibility in all forms, and it is with some reluctance that I take on this position. I will because I feel a debt (of gratitude) to CCAT/S, for providing me with my favorite social activity, news and information about our computers and computing in general, and for accepting me as a member. When I first started attending CCAT/S meetings many people regarded an interest in computers as odd, but the meetings were a place where that was not the case at all, and I have enjoyed your company ever since. I hope to repay my debt by doing the best I can as chairman this year.

Ken Lutes



FEBRUARY MEETING MINUTES

The meeting was called to order by Chairman Ken Lutes at 7:35 in the Far West Bank meeting room at Oregon City. About 12 people were present.

Treasurer Rod Gowan reported that membership dues have been coming in so the treasury is improving. A fair number have not paid as yet. There are ample funds to keep producing our newsletter.

Public Relations officer Bob Evans read a nice letter from the Salem TV station KBSP channel 22. They reported an interest in our monthly meeting notices and indicated that occasionally space was available for :30-:60 second community events spots. Possibly we could assemble a short program for this. Bob also reported that we have had favorable interest from a few newspapers and radio stations.

Rod reported on the status of BBS Echo operations. Bob Currie is actively engaged in promoting his BBS and is pursuing a possible international connections thru Signet.

The proposed swap meet for the 2nd Saturday in April was discussed. A good mailing list is now available so cards will be sent to past members to determine their interest in attending. The hope is either to instill greater interest, or possibly acquire unused equipment and get it into use.

Chairman Lutes suggested setting up a telecommunications link between two computers in the meeting room for the next meeting. As the bank no longer has a telephone outlet in the room this seems to be one way of demonstrating such systems.

Jack Armstrong wanted to know if postcards produced by various "designer" programs were acceptable for mailing as they were a non-standard size.

Our new member, Terry Graham, has offered to straighten up our library and get newsletters in their proper notebooks. We now have some 2" loose leaf covers that will help in this project. Terry also needs a word processor program for his TS 1000. Several were volunteered.

Our old word processor, Tasword II, was discussed. Maybe some members need a review on this subject.

Rod had a new program called PIX-FX on display. It is a system that permits changing screen\$ images, such as size, placement, working with part of an image, rotating, and many other interesting things. A final image can be saved as a screen\$ and be sent to a 2040 printer or a large dot matrix printer. Michael Di Rienzo, the developer of the program, has offered to digitize some images that we use in The Plotter. By a vote of the members, we are to give him a subscription to our newsletter for a year.

Dick Wagner noted that we lost the second Friday in March for our meeting, and that it will be on the third Friday.

The meeting was adjourned at 8:30.

pro tem. Secretary, Dick Wagner

LARKEN LINES

by: ROD GOWEN

Hello Again! We hope that you are making good use of your Larken systems and we also hope that you are looking forward to more products to make use of your system. We, at THE PLOTTER, hope to keep bringing you as much information as we can get.

We only have one MAJOR problem with doing this:-

>>>>

WE NEED YOUR INPUT!!!!!!!

If you are a Larken user and have a problem, a hint or tip that you have come across, or have converted or written a program that you would like to share with other Larken users, PLEASE, mail them in to the address on the back of this newsletter. We cannot and WILL NOT do this all by ourselves!

Just a short note this month to direct your attention to a new feature of THE PLOTTER. We are proud to present MICKAEL DIRIENZO and his new column, MIKE'S NOTEBOOK. Mike will be bringing us tips and information for and about the 2068. We hope that it will be a regular feature, but then, again, this will depend a lot on how much input we get! I direct you to MIKE'S NOTEBOOK this time because it deals directly with the Larken system and therefore will be of interest to regular readers of this column. I hope you enjoy it.

Nothing new from Larken Electronics to report. At last report, Larry was still working on the DTP and the Spell Checker. We will let you know as soon as anything new develops.

See you next time!-----

MIKE'S NOTEBOOK

By: Michael J. Di Rienzo

I recently purchased a Larken Disk System for my TS2068 and found myself frustrated by the lack of a simple and short disk file LOAD program where I didn't have to type each file name into a LOAD menu program. I decided to use the SCREEN\$ token to read file names from the screen following a disk CAT. The following brief program will do just that, and can be modified to CAT and LOAD from any disk system by changing the lines annotated below. Carefully type in the following program and change the CAT and LOAD commands in lines 30 and 150 to suit your disk system. I saved the program as an AUTOSTART

file. The program will CAT the current drive and display the contents in the normal way. If the screen is full and you get the SCROLL? prompt, you may either press ENTER to continue the CAT or press the BREAK key to select and LOAD the highlighted file on the screen. ON ERR is used to allow you to LOAD a file found on the screen instead of SCROLLing to the next page. This program is user configurable by allowing you to change screen colors and selection keys. Feel free to add your own enhancements/options.

Happy TIMEXing...

LOADER

By Michael J. Di Rienzo
February 1990

```
10 POKE 23658,8: PAPER 1: BORD  
ER 0: INK 9: CLS : DIM C$(10)
```

```
(^-Sets caps, screen colors and  
selects bar width
```

```
20 ON ERR GO TO 40
```

```
(^-BREAK brings a select bar.)
```

```
30 RANDOMIZE USR 100: CAT "",
```

```
(^-Larken CATalogue command.)
```

```
40 PRINT #1;AT 0,0;"'ENTER' ad  
vances Cursor, Space Bar select  
s file, 'X' CATs Disk."
```

```
(^-User instructions at input line.)
```

```
50 FOR L=0 TO 21
```

```
(^-Sets 10 character select bar.)
```

```
60 LET P=0: LET Q=9: GO SUB 16  
0: LET P=16: LET Q=25: GO SUB 16  
0
```

```
(^-Select bar moves in 2 columns  
of Larken CAT screen. Bar  
alternates between columns.)
```

```
70 NEXT L: GO TO 50
```

```
(^-Bar wraps back to line 1.)
```

```
80 LET B$="": LET E=10: ON ERR  
RESET
```

>>>>

Continued from page 3
(^ON ERR GO TO 50 cancelled.)

TS2068 SERIAL CABLE

90 FOR C=P TO Q

Gallen Bench

(^Reads highlighted file.)

100 LET A\$=SCREEN\$ (L,C): LET B
\$=B\$+A\$

(^name from screen.)

110 NEXT C

120 FOR F=LEN B\$ TO 1 STEP -1:
IF CODE B\$(F)=32 THEN LET E=E-1:
NEXT F

(^Removes any spaces to the right
of the file name.)

130 LET B\$=B\$(TO E)

140 PAPER 7: INK 0: BORDER 7: C
LS : PRINT #1;AT 0,0; FLASH 1;"L
OADING..."; FLASH 0; PAPER 2; IN
K 9;B\$

(^Prints LOADING file message,
resets ON ERR, allows error
messages.)

150 RANDOMIZE USR 100: LOAD B\$:
STOP

(^Larken LOAD line.)

160 PAUSE 10: PRINT OVER 1; PAP
ER 2; INK 6;AT L,P;C\$

(^Prints select bar over file
name. Sets bar speed.)

170 IF INKEY\$="" THEN GO TO 170

180 PRINT OVER 1; PAPER 1; INK
9;AT L,P;C\$

(^Removes select bar.)

190 IF INKEY\$="X" THEN RUN

(^Detects key to re-CAT.)

200 IF INKEY\$=" " THEN GO TO 80

(^Detects key to select
and LOAD the file.)

210 RETURN

Fellow TS 2068 users. I have found over the last few months that some of the information needed to complete some projects is not always clear with the instructions you may receive with the project. During the last couple of months I have started two such projects, namely the conversion of the 2050 modem to a modified serial port, and the building of a Z-SIO port card for my 2068.

The building of both projects was not that hard to do, having some prior kit building experience, especially soldering. Let me say that the first thing anyone must have is the patience to keep working at it to get it right. After completing each of the two projects, I ran into the same problem. I needed a serial port cable that would work with each of the two projects. The 2050 converted serial port had to have a male DB25 to female DB9 cable. The Z-SIO serial port card had to have a male DB25 to male DB25 cable (DB9 and DB25 refers to the connector types).

The instructions for each project did not give a clear pinout for either cable. They did give the signal available at each pin, but how these should be configured with the signals needed for the external modem was not given. After some study and just plain trial and error, I was able to find the correct configuration for each cable. The information was there, but for a novice, it took a little work and some added advice from some friends to put it together right.

Listed below is the serial cable configuration that I have found will work on the Z-SIO serial port card, and the modified 2050 serial port. I hope this information is helpful.

>>>>

RS 232	2050 SERIAL	Z-SIO
1 GRN	1 GRD	1 GRD
2 TX	2 TX	2 TX
3 RX	3 RX	3 RX
4 RTS	8 RTS	4 RTS
5 CTS	:---5 CTS	:---5 CTS
6 DSR	:---6 DSR	:---6 DSR
7 S.GND	:---7 S.GNS	:---7 S.GND
20 DTR	:---4 DTR	:--20 DTR
	:	:
	:---JUMPER---	:

I hope the above listing of how I constructed the cables for either of these serial ports will be helpful.

PIX-FX

by: M.J. Di Rienzo

Distributed by: RMG Enterprises

Address: same as THE PLOTTER return address

Price: \$19.95 on cassette

Dick F. Wagner

This screen manipulator utility is an interesting program that permits a lot of control over the final printing of a screen dump. This image can be any of several different screen\$ saves at the normal address. Digitized images work fine for this system.

The manual gives a good explanation of each process the program uses, and includes some example program steps. The one explanation I needed was how to make adjustments in size to two different images and then combine them into a single image. The text did partly explain as I discovered in rereading parts of it several times.

There are 4 pull-down menus, and 2 screens assigned to the display of the working and final screen windows on one screen. There are also the full size screens required for various steps.

The PIX-FX Help menu provides a limited slow scrolling text instructions for Conventions, Planet Maker, Perspective, Magnify, Reduce, Copy & Paste, and Screen Merge.

The main menu is the starting point and many steps go back to this menu for re-assignment during the screen manipulation. The following steps are displayed, Help, Screen Storage, Planet Maker, Perspective, Magnify, Reduce, Copy & Paste, Merge Screen\$, Invert (B&W), & Horizontal Flip.

The Screen Storage menu provides View (to view the two display screen windows, Final and Work Screen\$), Save Final Screen\$ (to disk cassette, etc.), Load/Move menu selection, and Copy Screen\$ (2040 unless revised for large printer).

The Load/Move menu is where provision is made to import screen\$ into either the working screen\$ or final screen\$ window. Also a copy of either window can be moved back and forth to shift screen\$ or images. A series of screen\$ are provided to experiment with.

The Planet Maker converts a flat image into a 3-D sphere. This sphere can be tipped and rotated.

The Perspective menu works best by assigning a top or bottom line to be horizontal reference and the opposite edge slants as desired. All of the objects within the plane automatically adjust.

My use of this program was limited to using the Reduce process but the Magnify process is very similar. The imported image to the working window is moved to a full size window for processing. Here the choice is provided for proportional or non-proportional modes. In non-proportional the image may not lend itself to a proportional marking of the part to be worked on (may be a part of the displayed image). Marking is by a dart that is moved by the 4 direction keys, first at the upper left corner where it is set with the ENTER key, then at the bottom right corner where it is set. Running X & Y axis numbers show where the cursor is at all times. The 2068 graphics convention is followed, 0,0 at bottom left

Continued from page 5

Horizontal movement of the pixel position is 0 to 255, and the vertical is 0 to 175. To help locate the desired boundaries a set of V & H rays are projected on demand.

Once the area boundaries are established ENTER brings up an empty window, or sends the image marked by the boundaries to the final screen, or to the present screen (return for correction). When in the empty screen mode, darts are again set to the desired boundaries ie: as for enlargement or reduction. This requires a bit of record keeping as not only are the boundaries changed as desired but the image may be repositioned on the screen. On ENTER the revised image is displayed on the Final screen window while the original image is displayed on the Working screen window.

Once the final screen image is available it can be sent to either a 2040 printer or a large printer (The user must change the program at the specified line for the proper screen dump for a large dot matrix printer. For my Oliger system I just added a "COPY /".

The manual does provide the line numbers for most of the program lines to be changed for customizing. For some reason, line numbers 9990 and 9999 were not mentioned for changing to meet the needs for the storage system to be used.

For a test of the program and the steps involved, I opted for a difficult beginning, a 2-piece screen\$ of a bird that exceeded 256 pixels in width. Actually, the bird was made up of computer graphic symbols such as shown on the original print I photo copied. The first 2040 print-out displayed a rather elongated part of the bird. My intent was to reduce the two images the same proportion in height and width so a final match could be made at the desired size of the original. Because my dump program uses 60 dots per inch horizontal and 72 dots per inch verticle, the image was too wide by $72/60$, or $7/6$.

It will be necessary to go thru the steps so please bear with me. The screen\$, "dove 1", was first imported to the working screen and then processed by the methods given above to arrive at the desired pixel width and height. This was then viewed in the Final screen\$ window and than saved as "DOVE 1". This was the main body of the bird. The tail was next imported as "dove 2", processed to the same proportions as the body and properly located horizontally and vertically to match the body. Incidentally, the beak of the body was at $X=0$ for easy reference. The tail was now moved to the Final screen window and saved as "DOVE 2."

Thru various errors, I found that the moveable dart sides must pass thru the pixels that were to be the boundaries. Obviously this should have been apparent as the image can be at 0,0 and the dart must also be at the same point. If the darts are at the next pixel beyond the boundaries the image will be off by this amount. This also applies to selecting boundaries beyond the image. I used the system of just touching the image as easier to control.

Now comes the final test, joining the two images into a single bird. Importing the body into the Final screen window from "DOVE 1" and the tail into the Working screen window from "DOVE 2", Merge joined them. Now this was saved on disk as "DOVE". A print-out on the large printer was fine except too wide by $1/7$.

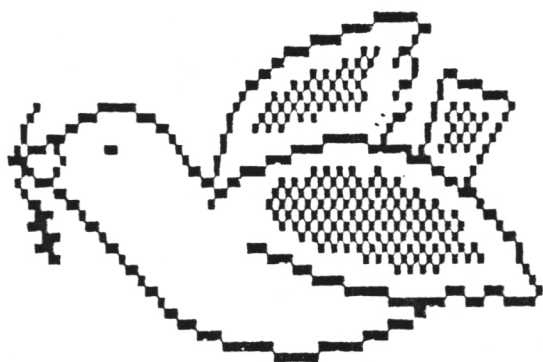
This was easily corrected by importing the "DOVE" screen\$ to the Working screen window, copied to the Final screen window, processed thru the marking process and reduced in width by $1/7$, and again saved as "DOVE". The final image is shown in comparison with the photo copy of the original. Measure them!

A magnifying glass will show what happens on a reduction. In place of a constant number of columns for each block. some have fewer columns when they should be the same. This

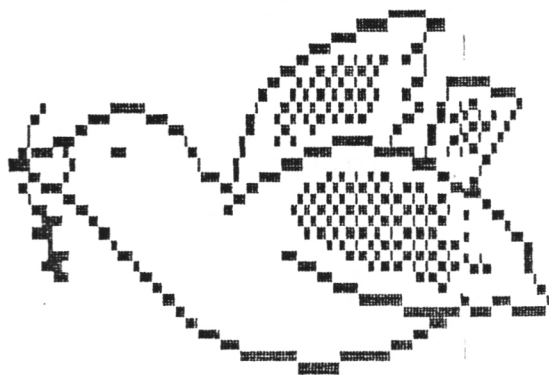
Continued from page 6

is something like a right justify on a printer but in reverse. The printer decides where to add spaces to pad out each line. Here the computer is deducting certain columns to produce the required number of columns within the figure.

From this deduction it would appear that an image made up of lines one pixel wide would suffer in quality if reduced. Maybe if a large area outside of the image boundary is included in a reduction the image may not be degraded.



COPY OF ORIGINAL



COPY BY PIX-FX

MORE TASWORD II

Dick Wagner

Some of us have used a program for some time, obtained more/newer equipment, and then find that we have to adapt that old familiar program to use it. This has happened to many of us who have used TASWORD II back in the early tape drive days.

There have been articles and word o mouth explanations on fitting thi program to different printe interfaces. In another issue I will guide you thru the process o changing the HELP page to matc those changed printer codes, printe name, etc. Why keep a crib sheet o your changes when you can correc the menu?

Here is a review of several popula interfaces. POKE the code number into the corresponding addresses either in direct mode or use POK program. BUT first, run a address/code check with a loo program to see if there are som that do not need changing.. mayb just a few POKES will do it.

AERCO IF		A & J	OLIGER/ HACKSEL
ADDRESS	CODE	CODE	CODE
57999	127	65	127
58000	203	230	203
58001	103	4	103
58005	0	211	0
58006	0	66	0
58007	211	62	211
58008	127	4	127
58009	0	211	0
58010	62	65	62
58011	247	175	247
58013	251	65	251
58014	219	201	219
58015	NC	NC	127

FROM THE EDITOR'S DES

Terminology--I found that I wa quite confused between the terms "scanner", "digitizer", and "optica character reader". An article in th February issue of QL-WORLD magazin has set me straight. This partl came about because of th availability of a 2068 digitize from the SMUG user group. Just wha was it and what could it do?

I did have an answer about digi tizers in the T/S Users Encyclo pedia. It says "a digitizer is device which converts analog infor mation to its digital equivalent Often used for devices obtainin input from a plotting surface (as

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Continued from page 7
and Y axis) and providing coordinates as an output, such as a graphic tablet".

So, what is meant by analog and digital? Analog is an infinitely varying voltage, say from 0 to 5 volts with all voltages in between. Digital is a varying voltage with only a lower and upper limit, such as 2.4 and 5 volts.

The QL-WORLD article has an explanation about digitizers, "a mouse-like device which stores its coordinates when a button is clicked. Its main use is to convert maps, plans, and technical drawings into computer compatible data."

An optical character scanner is much more sophisticated than a mouse and digitizer. "It is programmed to recognize certain type faces and it can produce a fairly accurate ASCII-coded text file from a page of print".

A scanner "is a device which detects light and dark shades on a surface, converts it to digitized values and produces a screen display closely resembling the original picture".

A scanner can be in many forms. Of interest here is that such a device is available from W. Germany suitable for use with the QL computer. It mounts on the head assembly of a dot matrix printer.

CCAT/S

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